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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Raanan A. Miller and Markus Zahn

Application No.: 10/082,803                          Group Art Unit: 2881

Filed: February 21, 2002                          Examiner: Gurzo, Paul M.

Confirmation No.: 4435

Title: LONGITUDINAL FIELD DRIVEN ION MOBILITY FILTER AND DETECTION SYSTEM

CERTIFICATE OF MAILING	
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450	
on	<u>1-16-04</u>
Date	<u>Karen Sabia</u>
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Typed or printed name of person signing certificate	

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This Supplemental Information Disclosure Statement is submitted:

under 37 CFR 1.129(a), or  
(First/Second submission after Final Rejection)

under 37 CFR 1.97(b), or  
(Within any one of the following time periods: three months of filing national application (other than a CPA) or date of entry of the national stage in an international application; or before the mailing date of a first office action on the merits in a non-provisional application, including a CPA, or a Request for Continued Examination).

under 37 CFR 1.97(c) together with either:  
 a Statement under 37 CFR 1.97(e), as checked below, or  
 a \$180.00 fee under 37 CFR 1.17(p), or  
 (After the 37 CFR 1.97(b) time period, but before final action or notice of allowance, whichever occurs first)

under 37 CFR 1.97(d) together with:  
 a Statement under 37 CFR 1.97(e), as checked below, and  
 a \$180.00 fee under 37 CFR 1.17(p), or  
 (Filed after final action or notice of allowance, whichever occurs first, but on or before payment of the issue fee)

under 37 CFR 1.97(i):  
 Applicant requests that the IDS and cited reference(s) be placed in the application filewrapper.  
 (Filed after payment of issue fee)

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Statement Under 37 CFR 1.97(e)

- [ ] Each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement; or
- [ ] No item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned, after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of this Information Disclosure Statement.

Statement Under 37 CFR 1.704(d) (Patent Term Adjustment)

Applies to original applications (other than design) filed on or after May 29, 2000

- [ ] Each item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in § 1.56(c) more than thirty days prior to the filing of the Information Disclosure Statement.

[X] Enclosed herewith is form PTO-1449:

- [X] Copies of the cited references are enclosed.
- [ ] Copies of cited references are enclosed except those entered in prior application, U.S. Application No. [ ], to which priority under 35 U.S.C. 120 is claimed. The earlier application contains copies of the cited references.
- [ ] The listed references were cited in the enclosed International Search Report in a counterpart foreign application.
- [X] The "concise explanation" requirement (non-English references) for references AM2, AN2, AO2, AP2, AQ2, AL3 under 37 CFR 1.98(a)(3) are satisfied by:
  - [ ] the explanation provided on the attached sheet.
  - [ ] the explanation provided in the Specification.
  - [ ] submission of the enclosed International Search Report.
  - [ ] submission of the enclosed English-language version of a foreign Search Report and/or foreign Office Action.
- [X] the enclosed English language abstract attached to each reference.

[ ] Applicant requests that the following non-published pending applications be considered:

Examiner's  
Initials

\_\_\_\_ U.S. Patent Application No. [ ], by [inventor(s)], filed [ ], Docket No.: [ ]

\_\_\_\_ U.S. Patent Application No. [ ], by [inventor(s)], filed [ ], Docket No.: [ ]

\_\_\_\_ U.S. Patent Application No. [ ], by [inventor(s)], filed [ ], Docket No.: [ ]

Examiner \_\_\_\_\_

Date \_\_\_\_\_

[ ] A copy of each above-cited application, including the current claims, is enclosed.

[ ] A copy of each above-cited application, including the current claims, is enclosed, except those entered in prior application, U.S. Application No. [ ], to which priority under 35 U.S.C. 120 is claimed.

The Examiner is requested to return a copy of the above list of pending applications indicating which references were considered with the next office communication.

It is requested that the information disclosed herein be made of record in this application.

Method of payment:

[X] A check for the fee noted above is enclosed, or the fee has been included in the check with the accompanying Reply. A copy of this Statement is enclosed.

[ ] Please charge Deposit Account 08-0380 in the amount of \$[ ]. A copy of this Statement is enclosed.

[X] Please charge any deficiency in fees and credit any overpayment to Deposit Account 08-0380.

Respectfully submitted,

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

By 

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Dated: 1/16/04

PTO-1449 REPRODUCED			ATTORNEY DOCKET NO. 3239.1000-017	APPLICATION NO. 10/082,803	
INFORMATION DISCLOSURE CITATION IN AN APPLICATION			FIRST NAMED INVENTOR Raanan A. Miller	FILING DATE February 21, 2002	
January 15, 2004 (Use several sheets if necessary)			EXAMINER Paul M. Gurzo	CONFIRMATION NO. 4435	GROUP 2881

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U.S. PATENT AND TRADEMARK OFFICE

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	REF. NO.	DOCUMENT NUMBER Number-Kind Code (if known)	ISSUE DATE / PUBLICATION DATE MM-DD-YYYY	NAME OF PATENTEE OR APPLICANT OF CITED DOCUMENT
	AD4	3,931,589	01/06/1976	Aisenberg, et al.
	AE4	4,025,818	05/24/1977	Giguere, et al.
	AF4	4,136,280	01/23/1979	Hunt, et al.
	AG4	4,201,921	05/06/1980	McCorkle
	AH4	5,536,939	07/16/1996	Freidhoff, et al.
	AI4	5,723,861	03/03/1998	Carnahan, et al.
	AJ4	5,789,745	08/04/1998	Martin, et al.
	AK4	5,801,379	09/01/1998	Kouznetsov
	AA5	5,838,003	11/17/1998	Bertsch, et al.
	AB5	5,869,344	02/09/1999	Linforth, et al.
	AC5	5,965,882	10/12/1999	Megerie, et al.
	AD5	6,051,832	04/18/2000	Bradshaw
	AES	6,066,848	05/23/2000	Kassel, et al.
	AF5	6,107,628	08/22/2000	Smith, et al.
	AG5	6,200,539 B1	03/13/2001	Sherman, et al.
	AH5	6,323,482 B1	11/17/2001	Clemmer, et al.
	AI5	6,509,562 B1	01/21/2003	Yang, et al.
	AJ5	6,618,712 B1	09/09/2003	Parker, et al.
	AK5	2002/0134932 A1	09/26/2002	Guevremont
	AA6	2002/0070338 A1	06/13/2002	Loboda
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	AC6	5,834,771	10/10/98	Yoon, et al.
	AD6	6,495,823 B1	12/17/2002	Miller, et al.

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		GROUP 2881

## FOREIGN PATENT DOCUMENTS

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			GROUP 2881

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

AU	"Advanced Cross-Enterprise Technology Development for NASA Missions," Revised NASA Research Announcement NRA99-OSS-05 pp. 1-C19 (1999).
AV	Buryakov, <i>et al.</i> , "Drift Spectrometer for the Control of Amine Traces in the Atmosphere," <i>J. Anal. Chem.</i> 48(1):112-121 (1993).
AW	Handy, <i>et al.</i> , "Determination of Nanomolar Levels of Perchlorate in Water by ESI-FAIMS-MS," <i>J. Anal. At. Spectrometry</i> 15:907-911 (2000).
AX	Buryakov, <i>et al.</i> , "Separation of Ions According to Mobility in A Strong AC Electric Field," <i>Letters to Journal of Technical Physics</i> , 17:11-12 (1991).
AY	Guevremont, Roger and Purves, Randy W., "High Field Asymmetric Waveform Ion Mobility Spectrometry-Mass Spectrometry: An Investigation of Leucine Enkephalin Ions Produced by Electrospray Ionization," <i>J. Am. Soc. Mass. Spectrom.</i> 10:492-501 (1999).
AZ	Verenchikov, A.N. <i>et al.</i> , Analysis ions in solutes by gaseous ion analyzer. "Chemical Analysis of the Environmental Objects," red. Malakhov. Novosibirsk, Nauka, pp. 127-134(1991).
AR2	Rieger D.E., <i>et al.</i> , "Qualitative Evaluation of Field Ion Spectrometry for Chemical Warfare Agent Detection," Proceedings of The ASMS Conference on Mass Spectrometry and Allied Topics, pages 473A-473B, (1997, June).
AS2	Carnahan, B., <i>et al.</i> , "Field Ion Spectrometry - A New Analytical Technology for Trace Gas Analysis," <i>ISA</i> , 51(1):87-96, (1996).
AT2	Carnahan, B., <i>et al.</i> , "Field Ion Spectrometry - A New Technology for Cocaine and Heroin Detection," <i>SPIE</i> , 2937:106-119, (1997).
AU2	Miller, R.A., <i>et al.</i> , "A Novel Micromachined High-Field Asymmetric Waveform Ion Mobility Spectrometer," <i>Sensors and Actuators B</i> , B67(3):300-306, (2000). <span style="float: right;">JAN 2002 CHICAGO CENTRE</span>
AV2	Barnett, D.A., <i>et al.</i> , "Isotope Separation Using High-Field Asymmetric Waveform Ion Mobility Spectrometry," <i>Nuclear Instruments &amp; Methods in Physics Research</i> , 450(1):182-185, (2000). <span style="float: right;">JAN 2002 CHICAGO CENTRE</span>
AW2	Guevremont, R., <i>et al.</i> , "Calculation of Ion Mobilities From Electrospray Ionization High-Field Asymmetric Waveform Ion Mobility Spectrometry Mass Spectrometry," <i>Journal of Chemical Physics</i> , 114(23):10270-10277, (2001). <span style="float: right;">JAN 2002 CHICAGO CENTRE</span>

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		EXAMINER Paul M. Gurzo	CONFIRMATION NO. 4435	GROUP 2881

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

	AX2	Pilzecker, P., et al., "On-Site Investigations of Gas Insulated Substations Using Ion Mobility Spectrometry for Remote Sensing of SF <sub>6</sub> Decomposition," <i>IEEE</i> , pp. 400-403, (2000).
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	AZ2	Burykov, I.A., et al., <i>Device and Method For Gas Electrophoresis, Chemical Analysis of Environment</i> , edit. Prof. V. V. Malakhov, Novosibirsk: Nauka, (1991) pp. 113-127.
	AR3	Raizer, Y. P., et al., <i>Radio-Frequency Capacitive Discharges</i> , CRC Press, pp. 1-3, (1995).
	AS3	"A Micromachined Field Driven Radio Frequency-Ion Mobility Spectrometer for Trace Level Chemical Detection," A Draper Laboratory Proposal Against the "Advanced Cross-Enterprise Technology Development for NASA Missions," Solicitation, NASA NRA 99-OSS-05.
	AT3	Javahery, G., et al., "A Segmented Radiofrequency-Only Quadrupole Collision Cell for Measurements of Ion Collision Cross Section on a Triple Quadrupole Mass Spectrometer," <i>J. Am. Soc. Mass. Spectrom.</i> 8:697-702 (1997).

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